

UNITED STATES DEPARTMENT OF AGRICULTURE  
AGRICULTURAL RESEARCH ADMINISTRATION  
BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE

ETHYLENE DIBROMIDE FUMIGATION APPROVED AS A CONDITION FOR CERTIFICATION  
OF CERTAIN FRUITS AND VEGETABLES UNDER HAWAIIAN FRUIT AND VEGETABLE  
QUARANTINE NO. 13

In accordance with 7 CFR 301.13-4 (b) of the regulations supplemental to Hawaiian Fruit and Vegetable Quarantine No. 13, ethylene dibromide fumigation, applied in the following manner, is hereby designated as an administratively approved procedure that meets the requirements for the certification of avocado, bell pepper, bitter melon, Cavendish banana, cucumber, papaya, pineapple, string beans, and Zucchini squash for interstate movement from Hawaii:

Approved atmospheric fumigation.--Treatment is to be given in an approved atmospheric fumigation vault for a period of two hours at a minimum temperature of 70° F., with a dosage of one-half pound of ethylene dibromide per 1,000 cubic feet of space, including the load.

Fumigation vaults and equipment must be approved for that purpose by the Bureau of Entomology and Plant Quarantine. Such vaults must be equipped with a gas-tight glass window to permit a view inside the chamber while fumigation is in progress. The ethylene dibromide must be applied in the liquid state and heated over an electric hot-plate or other suitable means until vaporization is completed. The exposure time of two hours shall be calculated from the time vaporization is completed. A circulating fan shall be kept running in the vault throughout the fumigation period. Commodities to be fumigated must be placed in the vault in open containers.

Tests show that there is no detectable difference between untreated papaya, pineapple, cucumber, Zucchini squash, and bitter melon, and these commodities fumigated as authorized herein, after a minimum storage of 5 to 6 days at 55° F. Fumigated avocados, string beans, bell peppers, and Cavendish bananas show slight though questionable effects, but are considered commercially acceptable.

Both fumigations and subsequent handling of the fruits and vegetables must be under supervision of a plant quarantine inspector of the Bureau of Entomology and Plant Quarantine. Fumigated fruits and vegetables must be safeguarded against reinfestation during the period prior to shipment in a manner satisfactory to the inspector. Certification of these commodities for interstate movement will be based on both the treatment and compliance with the prescribed post-treatment safeguards.

All costs of treatment and prescribed post-treatment safeguards, other than the services of the supervising inspector, shall be borne by the owner of the commodities, or his representative.

While the prescribed treatment is judged from experimental tests to be safe for use with these commodities, the Department assumes no responsibility for any damage sustained through or in the course of treatment.



This approval shall be effective April 20, 1951.

(Sec. 8, 37 Stat. 318, as amended, 7 U. S. C. 161; 7 CFR 301.13-4

(b))

Done at Washington, D. C., this 20th day of April, 1951.

A handwritten signature in cursive script that reads "Avery S. Hoyt".

Chief, Bureau of Entomology and Plant Quarantine